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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/068,240	02/05/2002	Katsuji Suzuki	9281-4268	7694

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EXAMINER	
KUMAR, PANKAJ	
ART UNIT	PAPER NUMBER
2631	

DATE MAILED: 05/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/068,240	SUZUKI, KATSUJI	
	Examiner	Art Unit	
	Pankaj Kumar	2631	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 February 2002*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 and 2* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1* is/are rejected.

7)☒ Claim(s) *2* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *2/5/2002*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tsurumaru USPN 6,748,036 in view of Aslanis USPN 6,359,933 and Brost USPN 4,903,225. Here is how the references teach the claim:

3. As per claim 1: A frame synchronizing signal detecting method, wherein the method is used in a data multiplexing (Tsurumaru fig. 4, 7: MUX) transmitter (Tsurumaru col. 1 line 29: transmit. If this is not sufficient, it would be obvious for Tsurumaru to teach this as explained below)-receiver (Tsurumaru col. 1 line 8) which is provided with a transmitter-receiver that transmits and receives at least a radio-frequency signal (Tsurumaru col. 1 lines 51-52: radio reception frequency), modulator (Tsurumaru col. 1 line 28: modulate an audio signal; If this is not sufficient, it would be obvious for Tsurumaru to teach this as explained below)-demodulator (Tsurumaru col. 2 line 25) that coverts the radio-frequency signal to a baseband signal (Tsurumaru col. 1 lines 26-27: demodulates the modulation signal into an audio signal and outputs it where the audio signal inherently has to be at baseband for it to be audible; fig. 1: 71 demodulating from I/F i.e. output of 13) and converts the baseband signal to the radio-frequency signal (Tsurumaru col. 1 line 29: transmit by radio) and a baseband signal processor (Tsurumaru fig. 1: 79) that processes the baseband signal (Tsurumaru fig. 1: demodulated data input into 79)

and in which the baseband signal processor is provided with a frame synchronizing signal detector (Tsurumaru fig. 1: 80 frame correlation value calculation in timing control section 79); and wherein when a frame synchronizing signal included in received data is detected (Tsurumaru fig. 1: 80 detecting frame correlation from the demodulated data), the frame synchronizing signal detector sets a detection precision of the frame synchronizing signal before a frame synchronization link is established (Tsurumaru col. 3 line 17) to a high value (not in Tsurumaru but would be obvious as explained below) and sets the detection precision of the frame synchronizing signal after the frame synchronization link is established (Tsurumaru col. 22 lines 4-5) to a lower value than the high value (Brost col. 1 lines 39-48, col. 8 lines 35-39: setting to high threshold which causes more bits to look like they are synched and thus frame sync becomes less precise).

4. Tsurumaru teaches transmitter in col. 1 line 29 with transmit and modulator in col. 1 line 28 with modulate an audio signal; however, if this is not sufficient, then Tsurumaru does not teach transmitter and/or modulator but Aslanis teaches transmitter in col. 2 line 46 and modulation in col. 1 line 32 and thus it would have been obvious, to one of ordinary skill in the art, at time the invention was made, to arrive at the transmitter as recited by the instant claims, because the combined teaching of Tsurumaru with Aslanis suggest transmission with modulation as recited by the instant claims. Furthermore, one of ordinary skill in the art, would have been motivated to combine the teachings of Tsurumaru with Aslanis because Tsurumaru suggests receiving a modulated transmitted signal (something broad) in general and Aslanis suggests the beneficial use of transmitting a modulated signal (such as the receiver expecting to receive a transmitted modulated signal) in the analogous art of signal.

5. Tsurumaru does not teach setting a sync detection precision to a high value as claimed. Brost teaches in col. 1 lines 39-48, col. 8 lines 39-41 to set a sync detection precision to a high value as claimed because Brost teaches to set to a low threshold which causes fewer bits to look like they are synched and thus frame sync becomes more precise. Thus, it would have been obvious, to one of ordinary skill in the art, at time the invention was made, to arrive at setting a sync detection precision to a high value as claimed as recited by the instant claims, because the combined teaching of Tsurumaru with Brost suggest setting a sync detection precision to a high value as claimed by the instant claims. Furthermore, one of ordinary skill in the art, would have been motivated to combine the teachings of Tsurumaru with Brost because Tsurumaru suggests frame synchronization (something broad) in general and Brost suggests the beneficial use of setting a synchronization detection precision to a high value as claimed (such as at startup having one threshold and then at a later time having a different threshold (Brost col. 5 lines 29-55) which would increase speed, efficiency) in the analogous art of synchronization.

Allowable Subject Matter

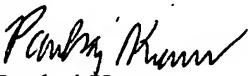
6. Claim 2 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pankaj Kumar whose telephone number is (571) 272-3011. The examiner can normally be reached on Mon, Tues, Thurs and Fri after 8AM to after 6:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad H. Ghayour can be reached on (571) 272-3021. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Pankaj Kumar
Patent Examiner
Art Unit 2631

PK